

(19)



JAPANESE PATENT OFFICE

## PATENT ABSTRACTS OF JAPAN

(11) Publication number: **63003429 A**(43) Date of publication of application: **08.01.88**

(51) Int. Cl.

**H01L 21/76**(21) Application number: **61148509**(71) Applicant: **NEC CORP**(22) Date of filing: **24.06.88**(72) Inventor: **HANEDA HISASHI**(54) **DIELECTRIC ISOLATION TYPE  
SEMICONDUCTOR DEVICE**

COPYRIGHT: (C)1988,JPO&amp;Japio

(57) Abstract:

**PURPOSE:** To prevent the warp of substrate in a dielectric isolation type semiconductor device from occurring by a method wherein a twolayered film comprising a silicon nitride film or a silicon oxide film and another silicon nitride film is provided on the surface of polycrystalline silicon substrate exposed to the parts between single crystal silicon island regions.

**CONSTITUTION:** Multiple single crystal silicon island regions 2 isolated by dielectric films 1 comprising  $\text{SiO}_2$  etc. are arranged on a polycrystalline silicon substrate 3. Silicon nitride films 5 as oxidation resistant films are provided on the parts exposed to both the surface and back surface of polycrystalline silicon substrate 3 to prevent any warp due to oxygen permeated during thermal oxidizing process from occurring. Through these procedures, the silicon nitride films 5 on the surface can prevent oxygen from permeating into the polycrystalline from the surface of substrate 3 to avoid the warp of substrate 3.

